

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP99/02704

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁶ H05K7/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁶ H05K7/20Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-1999
Kokai Jitsuyo Shinan Koho 1971-1999 Jitsuyo Shinan Toroku Koho 1996-1999

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP, 10-111039, A (Toshio Kojima), 28 April, 1998 (28. 04. 98) (Family: none)	1, 2
A	Japanese Utility Model Registration No. JP, 3048287, U (Kenjun Denki Kougyou Ko▲Fun▼Yuugen Koushi), 18 February, 1998 (18. 02. 98) (Family: none)	1, 2
A	JP, 8-316389, A (Sumitomo Metal Industries, Ltd.), 29 November, 1996 (29. 11. 96) (Family: none)	1, 2
A	JP, 5-190276, A (Matsushita Electric Industrial Co., Ltd.), 30 July, 1993 (30. 07. 93) (Family: none)	1, 2

 Further documents are listed in the continuation of Box C. See patent family annex.

• Special categories of cited documents:	
"A"	document defining the general state of the art which is not considered to be of particular relevance
"E"	earlier document but published on or after the international filing date
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"O"	document referring to an oral disclosure, use, exhibition or other means
"P"	document published prior to the international filing date but later than the priority date claimed
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"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&"	document member of the same patent family

Date of the actual completion of the international search
2 July, 1999 (02. 07. 99)Date of mailing of the international search report
13 July, 1999 (13. 07. 99)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.